HAWAIIAN ISLANDS HUMPBACK WHALE NATIONAL MARINE SANCTUARY ENTANGLEMENT RESPONSE EFFORTS

Background:

Marine mammal entanglement, or by-catch, is a global problem that every year results in the death of hundred of thousands of whales, dolphins, porpoises and seals. Entanglement may result in starvation or drowning due to restricted movement, physical trauma and systemic infections, and/ or contribute to other threats, like ship strikes. For Hawaii's smaller marine mammals, like the monk seals and dolphins, death is typically immediate, and due to drowning. However, large whales, like the humpback whale, can typically pull gear, or parts of it, off the ocean floor, and are generally not in immediate risk of drowning.



Humpback whale entangled in gear from Alaska.

"While disentanglement efforts may free and animal from a life-threatening entanglement, it is not the long-term answer to the problem. Rather, we need to reduce the rate in which entanglements occur."

Edward Lyman, Marine Mammal Response Manager for the Hawaiian Islands Humpback Whale National Marine Sanctuary.



Sanctuary's trained and authorized response team frees an entangled humpback whale off Maui.

Methodology:

Cutting free a 45-foot, 40-ton, typically free-swimming animal is not an easy task, and can be quite dangerous for humans and the animal alike. To do so safely, a boat-based technique called "kegging" is used to make the animal more approachable. Historically, 'kegging' involved attaching barrels or kegs to whales by harpooning them. The extra drag and buoyancy of the kegs would tire the whale out and keep it at the surface. For disentanglement purposes, rescuers throw grapples or use hooks on the end of poles to attach to the gear entangling the animal. Instead of barrels, rescuers use large buoys. Once approachable, rescuers safely assess the animal and entanglement, and attempt to free the animal of all entangling gear.





Community-based Network:

The Hawaiian Islands Entanglement Response Network is a community-based network, lead by the Hawaiian Islands Humpback Whale National Marine Sanctuary. Network partners include NOAA's Pacific Islands Regional Office, Hawaii's Department of Land and Natural Resources, the United States Coast Guard, whale researchers, Hawaii's tour industry, and many private organizations and individuals. The Network's response efforts are authorized under NOAA Fisheries' Marine Mammal Health and Stranding Response Program (permit # 932-1905).

Humpback whale entangled in marine debris.

Goals:

The Network's goals are to safely free endangered humpback whales and other marine animals from life threatening entanglements, and, at the same time, help gather valuable information that will reduce entanglement threats in the future.

Accomplishments:

- The Network has grown since its inception in 2002 and now comprises over 230 participants who have received various levels of training in order to support large whale response efforts statewide.
- Over 65 whales have been reported entangled.
- More than 70 on-water responses have been mounted (some reports could not be responded to due to time of day, weather, and/or remoteness).



Over 400 feet of line removed from a hump-back whale and traced to the Aleutians.

- Sixteen whales have been freed of entangling gear, with over 6,700 feet of line removed.
- Recovered gear has been identified as marine debris, mooring gear, local fishing gear, and fishing gear set far from Hawaii. Gear has been traced back to the Pribilof Islands, the Aleutians, and Southeast, Alaska. In some cases over 2450 nm straightline distance from Hawaii.



Humpback whale entangled in fishing gear.